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*Special section paper*

## The polarizing effects of group discussion in a negative normative context: Integrating societal-, group-, and individual-level factors

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In this research, we investigate how a negative (or hostile) norm regarding minorities at the societal level can fuel polarization between majority subgroups at the local level. We hypothesize that rapid social change in the form of polarization results from the interplay between small group processes and perceptions of society at large. By employing a novel analytic approach that uses variances to capture non-linear societal change, we were able to study polarization processes. In three studies among high school and university students ( $N = 347$ ), we manipulated the majority norm about a minority category (positive vs. negative). Subsequently, participants read about a minority member's ambiguous behaviour and evaluated this target. All studies used a similar paradigm, but they varied in whether or not participants discussed the ambiguous behaviour within local groups. Results showed that the majority norm at the societal level affected perceptions of the minority member's behaviour when people discussed this behaviour in a local majority group but not when they reflected on it individually. Specifically, group discussions led to polarization between local groups within a broader social category, but only in the context of a negative majority norm. This effect was predicted by the *a priori* perception of the local group norm. Results are discussed in terms of the integration of society- and group-level processes when studying the development of intergroup attitudes and practical implications for the coarsening climate of the societal debate about current societal issues.

In many Western societies, we witness a coarsening in public discourse about Muslim minorities. Despite this prevailing negative majority norm regarding immigrants, political views are often characterized by fragmentation and polarization rather than mere assimilation to the negative societal sentiment (Alba & Foner, 2017). Accordingly, both extreme right-wing and extreme left-wing parties have gained support over the last decades (e.g., the Dutch Socialist Party and the German Party of Democratic Socialism;

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Albertazzi & McDonnell, 2008; Dunlap, McCright, & Yarosh, 2016; for overviews, see March & Mudde, 2005; Mudde, 2004). Thus, there is an apparent discrepancy between a strong negative norm at the societal level and the emergence of small groups at the local level that hold beliefs either in line with *or* against this norm (i.e., polarization).

In this paper, we propose that a negative majority norm at the societal level can be considered a risk factor for catalysing political polarization. We argue that this phenomenon, in which society rapidly divides into extreme opinion camps, is explained by communication within 'local groups'<sup>1</sup>: Whether majority members go along with, or take a stance against a majority norm often depends on conversations with similar others. On their own, individuals may doubt the validity of social category norms. By turning to others, they can develop a locally shared view, thereby finding and validating their position (cf. Festinger, 1950). Indeed, local group interactions, especially with fellow social category members, shape group norms and outgroup attitudes (Greijdanus, Postmes, Gordijn, & Van Zomeren, 2015; Hewstone & Jaspars, 1982; Koudenburg, Postmes, & Gordijn, 2013a, 2017; Smith & Postmes, 2009, 2011; Smith, Thomas, & McGarty, 2015). We build on this research by investigating the impact of the valence of the social category norm (in this case, the majority norm) on this. By integrating societal- and group-level processes, with individual perceptions of these higher level variables, we aim for a better insight into the factors underlying societal polarization.

### **Social category norms**

In line with social identity theory (SIT; Tajfel, 1978; Tajfel & Turner, 1986), studies have demonstrated that when an identity is salient, norms attached to this identity guide members' behaviours and attitudes in many areas (e.g., Goldstein, Cialdini, & Griskevicius, 2008; Jetten, Spears, & Manstead, 1996). When intergroup conflict is salient, isolated individuals will engage in behaviour that favours the in-group (e.g., Tajfel, 1978; Tajfel, Billig, Bundy, & Flament, 1971). Indeed, when opportunities to engage in interaction are minimized, as in many social psychological research paradigms and some (authoritarian) societies, the influence of categorical or societal norms will be large (Galam & Moscovici, 1991).<sup>2</sup> The reasoning behind this is that when individuals become depersonalized, they do not interact as individuals but as members of the same social category (Turner, 1985).

We argue that this focus on in-group assimilation during intergroup conflict is valuable yet does not paint a complete picture. In real-life intergroup conflicts, local groups within the same social category often develop varying norms regarding, for instance, outgroups. Whereas some local groups develop norms promoting intergroup hostility, others develop pro-social norms (Thomas, Smith, McGarty, & Postmes, 2010). Thus, it seems crucial to distinguish between high-level collectives such as a society or broad social category (e.g., the majority of native inhabitants)<sup>3</sup> and the lived experience of local groups

<sup>1</sup> We use the term *local groups* to refer to small groups of people that directly communicate with each other, in the current research consisting of only majority group members.

<sup>2</sup> Galam and Moscovici use this logic to explain why authoritarian regimes endorse social mutism and why they encourage citizens to become informers on each other – and thus isolated from one another for fear that their neighbours might denounce them.

<sup>3</sup> A social category includes members of a society that share a relevant characteristic for the issue at hand, and in the case of immigration issues, this is likely to be migration background. Hence, the majority category consists of native inhabitants of the host country (here Native Dutch), whereas the minority category consists of people with a migration background (here specifically a Moroccan Dutch background). In the current research, we focus on a subset of these categories, namely students at universities or high schools.

with fellow members of that social category. This notion follows the argument that group-related perceptions and behaviours do not stem from mere objective membership of a social category but rather from the more complex dynamics that unfold within psychological groups (McGarty, Bliuc, Thomas, & Bongiorno, 2009).

### **Group influence: Consensualization and polarization**

The influence of a group on its members becomes evident through two complementary processes: consensualization and polarization (cf. Jans, Leach, Garcia, & Postmes, 2015). On the one hand, people consensualize their views when making judgements in a group (Sherif, 1936), both on their *own* group's stereotypes and norms (Bliuc, McGarty, Reynolds, & Muntele, 2007; McGarty *et al.*, 2009; Meeussen, Delvaux, & Phalet, 2014), but also on stereotypes about, and hostility towards, *other* groups (Grijndanus *et al.*, 2015; Haslam, Turner, Oakes, McGarty, & Reynolds, 1997; Smith & Postmes, 2009).

On the other hand, group discussions can also cause collective shifts towards more extreme positions (Moscovici & Zavalloni, 1969). This second form of group influence, polarization, implies that through intragroup interaction local groups can diverge from other local groups within the broader social category. For instance, interpretations of what the social category stands for may diverge: Feminists may have a different view on the role of women than women in more conservative local groups, who likely endorse more traditional gender roles (see also Wenzel, Mummendey, & Waldzus, 2008). Similarly, local majority groups' views of ethnic minority groups may diverge. Some local groups adopt hostile norms when they engage in interaction that consensualizes around negative outgroup stereotypes (Haslam, McGarty, & Turner, 1996; Haslam *et al.*, 1997; Thomas *et al.*, 2010). Other local group discussions evolve towards more pro-social views and behaviours (Reicher, Cassidy, Wolpert, Hopkins, & Levine, 2006; Thomas *et al.*, 2010). By discussing grievances, group members may develop equality beliefs or pro-social behaviour and this may become central to how they define themselves (Bliuc *et al.*, 2007, 2015; Thomas *et al.*, 2010). As such, within a social category, polarization may emerge between different local groups that evolve around diverging shared opinions (Bliuc *et al.*, 2007, 2015). We build on this research by proposing that polarization between local groups of majority members depends on the valence of the broader majority category norm.

We argue that both majority category norms and local group communications are sources of social influence – and that these processes interact (cf. Postmes, Spears, Lee, & Novak, 2005). That is, in most naturally occurring situations, majority members roughly know how the majority category in society feels about a certain issue, but they are also able to acquire, maintain, or transform these norms through interacting with other majority members in their local surroundings.

### **Local group norm formation under a negative majority norm**

Our key hypothesis is that the polarizing effects of local majority group discussions are especially likely to occur under a negative majority norm. This is because we believe a negative norm urges people to take a stance in the debate. This fits research showing that threat, or negative mood more generally, functions as an alarm signal stimulating action. Contrarily, positive mood signals that 'everything is fine', and no action or explicit stance-taking is necessary. Indeed, negative mood leads to more detailed, in-depth information processing (Bless, Bohner, Schwarz, & Strack, 1990; Forgas, 2013) and stimulates more extensive information exchange (Van Knippenberg, Kooij-de Bode, & Van Ginkel, 2010).

Therefore, a negative (vs. positive) majority norm is more likely to fuel discussion. By increasing the need for a shared definition of who ‘we’ are and what ‘we’ stand for as a group (McGarty *et al.*, 2009), a negative majority norm should in particular facilitate polarization between local groups within a broader social category.

A second reason why a negative majority norm should elicit more group influence can be derived from research on the positive–negative asymmetry effect. This research shows that although group members frequently express in-group favouritism, they are much less eager to engage in outgroup derogation (Mummendey & Otten, 1998; cf. Aaldering, Ten Velden, van Kleef, & De Dreu, 2018). Because negative attitudes are, in essence, less morally valued than positive attitudes (Katz & Hass, 1988; Killen & Smetana, 2006; Rutland, Killen, & Abrams, 2010), the development of negative attitudes about a minority category may require more social validation. Individuals may therefore be more strongly influenced by their local group under a negative majority norm than they would have been under a positive majority norm.

### ***The present research***

We propose that understanding the rapid social change process of polarization requires more advanced research paradigms, moving beyond studying societal-level or individual-level factors in isolation. In three studies, we examined the simultaneous influences of societal majority norms and local group discussions between majority members. We hypothesized that attitudes would polarize more under a negative (vs. positive) majority norm (Hypothesis 1). Secondly, we hypothesized a key role for perceptions of the local group norm in predicting the direction of polarization in a specific local group. We reasoned that majority members might tailor their contributions to the discussion to how they expect their local majority group to view the minority category. As such, the perceptions of a group member that introduces novel information to a local majority group (we refer to this as ‘the teller’) may be particularly influential in shaping the group discussion. The result may be a collective shift in interpretations and according attitudes, towards the teller’s perceptions of the local group norm. The influence of the teller’s perceptions should be especially visible under a negative majority norm, as the alarm signal posed by such a norm may motivate tellers to attune more to the local group norms (Hypothesis 2). Importantly, we compared the consequences of group discussion with the consequences of individual rumination and predicted a unique catalysing role of local group discussion in attitude polarization (Hypothesis 3). The current research tested these hypotheses with a relatively novel analytic approach, using variance in individual- and multilevel designs as a statistical proxy for polarization (see also Jans *et al.*, 2015; Kuppens & Yzerbyt, 2014). As we will outline in detail below, we operationalized polarization as the post-discussion difference *between* local majority groups in attitudes towards a minority group (member). As a comparison, we used differences in attitudes between individuals who reflected on majority norms in solitude.

## **GENERAL PROCEDURE**

We tested our hypotheses among students at a Dutch university (Study 1) and high schools (Studies 2 and 3). Each study followed the same procedure: After manipulating a majority norm, participants (i.e., majority members) reflected on an ambiguous intergroup scenario and completed a questionnaire. There was however one important difference

between the studies: In Study 1, participants received the norm information and reflected on the scenario individually, whereas in Study 2, participants discussed the scenario in local groups. Comparing the findings of Study 1 with those of Study 2 allows us to assess whether a majority norm influences polarization processes directly (i.e., by influencing individuals in Study 1) or indirectly (i.e., by shaping group discussions, as in Study 2). In Study 2, one group member (the teller) received the norm manipulation, read the scenario, and then discussed this within their local group. The other members were assigned the role of listener and did not receive the norm information or scenario. They were encouraged to react and ask questions about the tellers' experience. This set-up allowed us to isolate the tellers' perceptions of local group norms as a potential predictor of polarization between local groups.<sup>4</sup> Study 3 combined these individual (Study 1) and group (Study 2) settings and served to replicate the findings of Studies 1 and 2 in one design.

### **Majority norm manipulation**

Participants were randomly allocated to either a positive or a negative majority norm condition. The norm concerned native Dutch students' (i.e., university students' or high school students') perceptions of Moroccan Dutch students. For the native Dutch, Moroccan Dutch people are currently a highly relevant minority, of which especially the young men are stereotyped as aggressive, unadjusted, and criminal (e.g., Greijdanus, Postmes, Gordijn, & Van Zomeren, 2014). The *negative* [*positive*] majority norm condition presented a bogus newspaper article stating that 'large-scale research shows that native Dutch students *prefer not to* [*like to*] work together with Moroccan Dutch students, because they feel that they are *unreliable* [*accommodating*], and therefore native Dutch students feel that they *always need to check* [*can always receive help from*] Moroccan Dutch students'. The manipulation further stated that, 'in general, native Dutch students are *negative* [*positive*] about cooperation with Moroccan Dutch students'.

### **Ambiguous scenario**

Subsequently, participants reflected on an ambiguous scenario involving a Moroccan Dutch student. The scenario described a collaboration between the participant ('you'; participants imagined being the protagonist), Mirjam, Ernst (typical Dutch names), and Abdul (typical Moroccan name; minority target). In the scenario, the protagonist forgets his/her mobile phone at the faculty. Upon return at the faculty, they see Abdul holding their mobile phone in his hand. The scenario is ambiguous on Abdul's intentions, that is did he try to make sure the protagonist would receive his/her phone back, or to steal it?

Next, participants reflected on this scenario on their own (Study 1 and Study 3 individual conditions) or within a local group of Dutch students (Study 2 and Study 3 group conditions). Afterwards, all participants wrote about 'their experience'. Tellers and people who reflected on the scenario alone took the protagonist perspective, whereas listeners described the scenario as if it had occurred to the teller. All participants were

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<sup>4</sup> We regard this conservative test of the polarization hypothesis, as we consider it likely that listeners in the group are also motivated to develop a firm position on the issue when confronted with a negative majority norm. They could do so, for instance, by confirming the information given by the teller (which may be either positive or negative about the minority target), rather than providing potential alternative motives for minority target's behaviour. It would be likely that such behaviours may amplify the polarization processes reported in this paper.



asked to report both factual descriptions and their thoughts and feelings. We expected polarization only for participants who reflected on the scenario in groups.

### **Dependent variables and analytic strategy**

We measured effects on individual participants' attitudes regarding the outgroup target both explicitly using Likert scales, and less intrusively, by content-coding their written reports of the scenario. In Studies 2 and 3, we also assessed the participants' attitudes towards Moroccan Dutch students in general. We assessed polarization on each scale by examining whether differences between participants, (Study 1 and Study 3 individual conditions), or between local groups, (Study 2 and Study 3 group conditions), were larger in the negative than in the positive majority norm condition.

## **STUDY 1**

Study 1 served to explore whether a negative (vs. positive) majority norm, in itself, would foster polarization. We reasoned that if polarization results from local group discussions, exposure to a negative majority norm without local group discussion should not increase polarization (i.e., variance between individuals).

## **Method**

### **Participants and design**

Fifty undergraduates (43 women, seven men;  $M_{\text{age}} = 19.96$ ,  $SD = 1.93$ ; 48 native Dutch, two German) participated for partial course credit or a small monetary reward. As part of a different study (Koudenburg, Postmes, & Gordijn, 2013b; Study 2), participants had a 5-min dyadic conversation via headsets.<sup>5</sup> Afterwards, they were introduced to the current study, presented as an unrelated study.

Study 1 used a between-subjects manipulation of the majority norm regarding Moroccan Dutch students (positive:  $n = 25$  vs. negative:  $n = 25$ ). After receiving the majority norm manipulation and the ambiguous scenario, participants were asked to write about 'their experience' to the person they spoke with in the previous study.

### **Measures**

Single-item measures assessed participants' trust in the target: 'I trust Abdul' (1 = strongly disagree and 7 = strongly agree) and checked the majority norm manipulation: 'Dutch psychology students in general experience interaction with Moroccan Dutch students as negative (1)–positive (7)'. Participants reported their demographics and frequency of intergroup contact.<sup>6,7</sup>

<sup>5</sup> The conditions of this study did not influence the DVs of the current study, nor did controlling for condition change the pattern of results. In reporting the present results, we therefore do not include or control for these conditions.

<sup>6</sup> For exploratory reasons, Study 1 also included other measures. Because none of the variables were administered in the following studies, we describe only the most important variables in the present article. Full information is available from the first author on request.

<sup>7</sup> Participants' age, gender, and intergroup contact frequency did not influence the DVs, and the results of the norm manipulation did not change when we added these variables as covariates to the analyses. We report the results without these covariates.

Two independent coders rated participants' reported experiences on *trust* in the target (1 = strong distrust and 5 = strong trust) and the participant's *negative affect* about the situation (1 = positive, 3 = indifferent, and 5 = negative).<sup>8</sup> The codings had sufficient inter-rater reliability, and we calculated the average between coders as indicators of trust (ICC2 = .72) and negative affect (ICC2 = .86).<sup>9</sup>

## Results

### Majority norm

Table 1 displays the means and standard deviations. The manipulation was effective; participants in the positive condition reported that native Dutch students experienced intergroup interaction more positively than participants in the negative condition,  $F(1, 48) = 8.49$ ,  $p = .005$ ,  $\eta_p^2 = .15$ . We found no effects on self-reported trust nor on the codings of trust or negative affect of the minority target,  $F_s < 1.27$ ,  $p_s > .264$ .<sup>10</sup>

### Polarization

To investigate between-participant polarization, we also tested whether the majority norm manipulation influenced variances in the DVs. We used the Bartlett-Box test to test heterogeneity of variances across all three DVs. As anticipated, this test indicated no significant between-condition differences, Box's  $M = 5.47$ ,  $p = .532$ . Accordingly, Levene's test of equality of variances per variable revealed no significant between-condition differences on negative affect,  $F(1, 48) = 1.64$ ,  $p = .207$ , or self-reported and coded trust,  $F_s < .256$ ,  $p_s > .615$ .

## Discussion

We found no effect of a negative (vs. positive) majority norm manipulation on outgroup attitudes when majority participants reflected *individually* on an ambiguous scenario involving a minority member. Importantly, we also found no evidence for between-condition differences in variances. This suggests that a negative majority norm in itself

**Table 1.** Means (SDs) per condition of the categorical majority norm in Study I

	Negative norm ( $n = 25$ ) M (SD)	Positive norm ( $n = 25$ ) M (SD)
Manipulation check	4.00 <sub>a</sub> (1.00)	4.92 <sub>b</sub> (1.22)
Reported trust target	3.16 (1.49)	3.04 (1.45)
Trust	2.46 (0.83)	2.72 (0.89)
Negative affect	3.50 (1.03)	3.14 (1.22)

Note. Different subscripts indicate that means per condition did significantly differ at  $p < .05$ .

<sup>8</sup> Initially, we used additional codings. We did not include these in the final analyses because they had very little variation in their scores or had low inter-rater reliabilities.

<sup>9</sup> Because both coders rated all cases, we used the ICC2 for the average measures to estimate inter-rater reliability.

<sup>10</sup> There were no condition effects on participants' perceived overlap between themselves and the target, or between the target and the Moroccan Dutch student group, suggesting that the target was equally likely to be categorized as an outgroup member in both conditions.



does not lead to more polarized interpretations of an ambiguous scenario than a positive majority norm does. Study 2 aimed to examine whether the majority norm affects majority members' interpretation of an ambiguous intergroup scenario differently when they discuss this scenario within a local in-group.

## STUDY 2

The set-up was similar to Study 1, but in Study 2, students discussed the scenario in a local group of majority members instead of reflecting on it individually. Afterwards, we assessed participants' attitudes regarding the minority target using both self-reports and codings as in Study 1 but using a more elaborate and validated scale (Leach, Ellemers, & Barreto, 2007). Additionally, we assessed whether effects would extend beyond evaluations of the target outgroup member to attitudes regarding Moroccan Dutch students in general.

We hypothesized that local group discussion would catalyse polarization between local groups under a negative (vs. positive) majority norm (Hypothesis 1). An important additional question was what steers the direction of this polarization. We proposed that members' *a priori* perception of the local group norm plays an important role. That is, local group members who entered the discussion anticipating a positive local group norm (e.g., because of their personal attitudes, their impression of the group on basis of physical features, or the context of a social psychology workshop) would likely reinforce this norm through group discussion (and vice versa for a negatively perceived norm). We hypothesized that local group norm perceptions by the tellers would be particularly influential under a negative majority norm. Because of the alarm signal posed by the negative majority norm, tellers should be more likely to tailor their descriptions of what happened to how they expect their local group to view the minority category. For instance, they could share information or express opinions that confirm rather than contradict this perceived norm (Kashima, 2000; Lyons & Kashima, 2003). The result may be that especially under a negative majority norm, interpretations of the scenario and according attitudes collectively shift towards the teller's perception of the local group norm (i.e., interaction between teller's perception of the local group norm and the majority norm, Hypothesis 2).

## Method

### *Participants and design*

As part of an introduction to psychology workshop, 159 high school students (128 women, 27 men;  $M_{\text{age}} = 15.52$ ,  $SD = 1.07$ <sup>11</sup>) participated.<sup>12</sup> Most participants had a native Dutch ( $n = 146$ ), a different Western, or a dual nationality ( $n = 5$ ). The data of three participants with non-Western backgrounds (Middle Eastern, Kosovar/Albanian) and their local group members ( $n = 7$ ) were excluded from analyses.

The study used a between-subjects manipulation of majority norm (positive:  $n = 77$ , vs. negative:  $n = 68$ ). Students entered in classes of 15–25 and were

<sup>11</sup> Four students did not indicate their gender, age, or background.

<sup>12</sup> In Studies 2 and 3, sample size was determined by the number of students enrolled in the introductory workshop. We conducted a post-hoc power analysis indicating that our sample sizes afforded 98% power in Study 2 and 87% power in Study 3 to detect between-condition differences in variance of a medium effect size ( $w = .30$ ).

randomly separated into local groups of three or four students. We assigned one student in each local group to be the *teller* and the others to be *listeners*. Only group tellers received the majority norm manipulation, which was similar to Study 1, but now concerned native Dutch *high school* student norms regarding Moroccan Dutch *high school* students.

After the majority norm manipulation, participants who were assigned the role of teller read the scenario, but instead of writing about it, they were asked to tell 'their experience' to the listeners in their local group. Listeners were encouraged to react and ask questions about the tellers' experience. Finally, all participants completed a set of questionnaires.

### Measures

We assessed the same DVs for all participants. First, participants rated the target 'Abdul' in terms of warmth, competence, and morality (Leach *et al.*, 2007; e.g., 'I think that Abdul is friendly', 1 = not at all applicable and 7 = very applicable). The nine items were combined into one target evaluation scale ( $\alpha = .92$ ). Perceived majority norms, local group norms, and personal attitudes regarding Moroccan Dutch students were assessed with three bi-polar items each: [native Dutch students]/[my group members]/[I] view Moroccan Dutch students as: 1 = mostly negative – 7 = mostly positive, 1 = unreliable – 7 = reliable, and 1 = unhelpful – 7 = helpful. Combining the three items gave reliable scales for perceived majority norms ( $\alpha = .81$ , i.e., manipulation check), perceived local group norms ( $\alpha = .90$ ), and attitudes ( $\alpha = .90$ ).<sup>13</sup> Finally, all participants described the scenario on paper and reported their demographics and intergroup contact frequency.

Four independent coders coded the written experiences on the same indicators as used in Study 1. One coder's trust ratings had low correlations with the other three coders. Because removing this coder increased reliability ( $ICC2_{\text{trust}} = .87$ ,  $ICC2_{\text{negative affect}} = .79$ ), we present results based on the remaining three coders.

### Results

We used multilevel analyses with participants (Level 1) nested in local groups (Level 2) to conduct two tests: First, we examined whether polarization between local groups would be increased in the negative (vs. positive) majority norm condition (i.e., comparing Level 2 variances between conditions). Second, we attempted to explain polarization between local groups by the perceived local group norm (i.e., examining interaction effects at Level 2). In the second analysis, we also tested for main effects of the majority norm manipulation and local group norm perceptions.

### Manipulation check

The majority norm manipulation succeeded; tellers in the positive majority norm condition perceived native Dutch students to view Moroccan Dutch students more positively ( $M = 3.97$ , 95% CI [3.60; 4.35]) than tellers in the negative majority norm

<sup>13</sup> In Studies 2 and 3, participants also completed pre- and post-measures of their identification with the local group in the study, as well as with native Dutch students.

condition ( $M = 3.29$ , 95% CI [2.86; 3.71]), *mean difference* = 0.68 ( $SE = 0.27$ ),  $t(44) = 2.52$ ,  $p = .015$ .

### **Polarization between local groups**

Comparing the ICC1s between conditions, the local group explained on average 40% of the variance in all DVs in the negative majority norm condition, but only 19% of the variance in the positive majority norm condition.<sup>14</sup> ICCs higher than zero can reflect decreased individual-level variability within groups (consensualization) and/or increased differences between groups (polarization). In the current paper, we chose not to focus on the ICC, but tease the theoretically and empirically distinct processes of consensualization and polarization apart. Because we are primarily concerned with polarization, we focus on comparing *between-group* variances ( $\tau$ ) per condition (see Table 2; cf. Jans *et al.*, 2015).

To this end, we estimated for each dependent variable a Model 1 with only the intercept and a main effect for condition and a random intercept for local group. In Model 2, a parameter was added to explain the difference in local group-level variance between the two conditions. This additional parameter modelled the covariance between the Level 2 intercept (the variance at the local group level) and the majority norm condition. It can be interpreted as the difference in local group-level variance (i.e.,  $\tau_{00}$ ) between the two majority norm conditions. *Wald Z* tests indicated that for all dependent variables, more variance was explained by the local group in the negative norm condition than in the positive norm condition: Target evaluation, *Wald Z* = -2.95,  $p = .008$ ; trust, *Wald Z* = -2.85,  $p = .004$ ; negative affect, *Wald Z* = -2.86,  $p = .004$ ; and outgroup attitudes, *Wald Z* = -3.17,  $p = .002$ . This supports Hypothesis 1: More polarization occurred under a negative majority norm. We also examined whether adding this parameter improved the model fit by comparing the 2-restricted log-likelihoods of Model 1 and Model 2 with a  $\Delta\chi^2$  test. Results of these tests can be found in Table 2.

### **Teller's perception of local group norm**

To explain the polarization effects, we subsequently examined whether tellers' perceptions of the local group norm would be more likely to shape group discussion, and thus influence the DVs, under a negative than under a positive majority norm (interaction effect, Hypothesis 2). Each dependent variable (DV) was regressed onto *majority norm* [negative (0) vs. positive (1)], standardized values of *teller's perception of the local group norm*, and their interaction. A main effect for the majority norm manipulation revealed, paradoxically, higher trust in the negative (vs. positive) norm condition,  $\gamma = -.20$  (0.09),  $t(41) = -2.21$ ,  $p = .033$ . Other majority norm main effects were not statistically significant,  $|t|s < 1.08$ ,  $ps > .284$ . We found main effects of teller's perception of the local group norm on target evaluation,  $\gamma = .40$  (0.12),  $t(41) = 3.29$ ,  $p = .002$ ; negative affect,  $\gamma = -.12$  (0.06),  $t(41) = -2.11$ ,  $p = .041$ ; and outgroup attitude,  $\gamma = .36$  (0.10),  $t(41) = 3.42$ ,  $p = .001$ . All effects revealed assimilation to the

<sup>14</sup> Intraclass correlation (ICC1) is calculated by dividing the group-level variance by the total variance (individual and group level), using the formula:  $\tau/(\tau_{00} + \sigma^2)$  provided by Bliese (2000).

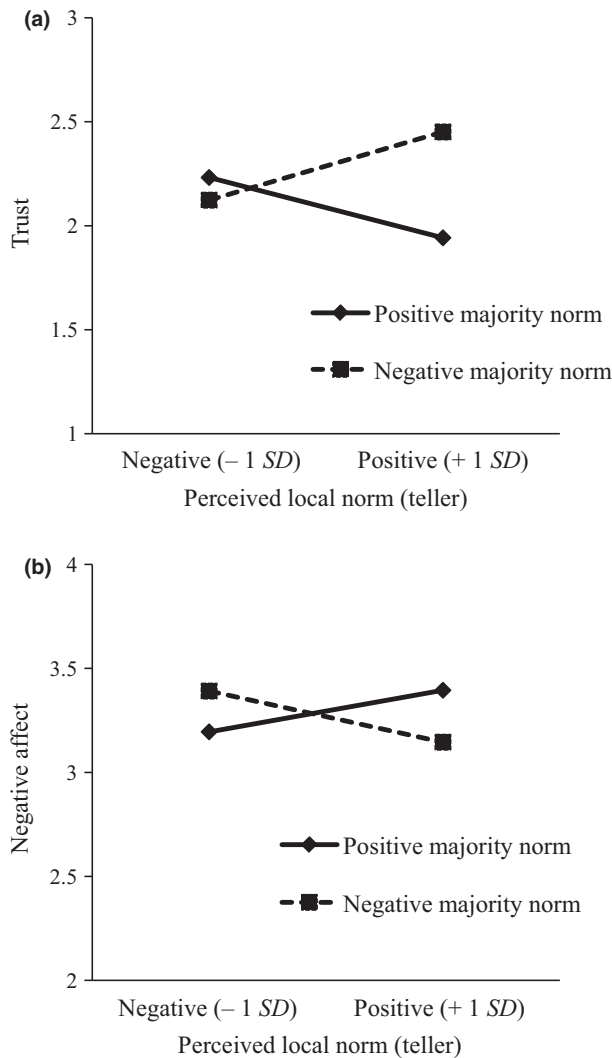
**Table 2.** Means, group influence statistics, and test results for differences in group-level variance between conditions (negative vs. positive categorical majority norms about the minority; Study 2)

	Negative majority norm ( <i>n</i> = 68)					Positive majority norm ( <i>n</i> = 77)					Between-condition difference in group-level variance		Chi-square test comparing fit in Model 1 and Model 2	
	Variance					Variance					Wald Z	<i>p</i>	$\Delta\chi^2$	<i>p</i>
	<i>M</i>	Individual level	Group level	ICCI	<i>M</i>	Individual level	Group level	ICCI						
Evaluation target	3.75	0.66 (0.14)***	0.80 (0.32)**	.55	4.01	0.46 (0.09)***	0.32 (0.14)*	.41	–2.95	.008	3.16	.075		
Trust	2.47	0.77 (0.16)***	0.54 (0.25)*	.41	2.09	0.99 (0.18)***	0.00 (0.00) <sup>a</sup>	.00	–2.85	.004	5.14	.023		
Negative affect	3.25	0.31 (0.06)***	0.22 (0.10)*	.42	3.28	0.38 (0.07)***	0.00 (0.00) <sup>a</sup>	.00	–2.86	.004	5.01	.025		
Outgroup attitude	4.65	0.80 (0.17)***	0.48 (0.24)*	.38	4.56	1.04 (0.20)***	0.08 (0.13)	.07	–3.17	.002	1.82	.178		

Notes. Standard errors for the variances are reported between brackets.

<sup>a</sup>This parameter is redundant.

\*\*\**p* < .001; \*\**p* < .01; \**p* < .05.



**Figure 1.** Graphical displays of the interaction effects on (a) trust and (b) negative affect in Study 2.

perceived local group norm. The effect on trust was in the same direction but not statistically significant,  $\gamma = .16$  (0.10),  $t(41) = 1.64$ ,  $p = .109$ .

Importantly, these main effects were qualified by interactions on trust,  $\gamma = -.13$  (0.10),  $t(41) = -3.09$ ,  $p = .004$ , and negative affect,  $\gamma = .22$  (0.06),  $t(41) = 3.83$ ,  $p = .001$ , suggesting that assimilation to the perceived local group norm was stronger under a negative (vs. positive) majority norm (see Figure 1a,b). We found similar yet non-significant interaction patterns on target evaluation,  $\gamma = -.15$  (0.12),  $p = .214$ , and outgroup attitude,  $\gamma = -.09$  (0.10),  $p = .374$ . The pattern of interactions is in line with Hypothesis 2. That is, under a negative majority norm, the local group's perceptions collectively shifted to what the teller expected to be the local group norm – resulting in more trust in the minority target and less negative affect among local group members when tellers expected the local group

norm to be positive than when they expected it to be negative. In the positive majority norm condition, local groups' perceptions of trust and negative affect did not align with tellers' local norm perceptions.

## Discussion

The results of Study 2 revealed that local majority group discussion about a minority target's ambiguous behaviour instigated collective attitude shifts: The local group either collectively distrusted the minority target or collectively shifted away from the negative majority norm. Thus, discussion of such events increased polarization between local groups. Importantly, we found evidence for polarization especially when the majority norm regarding the minority was negative. This is in line with our hypothesis that a negative majority norm urges local majority groups to take a stance that harms or benefits the outgroup – more so than a positive majority norm does – and is therefore more likely to cause rapid social change.

Additionally, Study 2 identified prior perceptions of local group norms as a predictor of the direction in which the local group will shift. Specifically, local group members' attitudes (i.e., target evaluation, negative affect, and general attitude towards the outgroup) collectively shifted towards the teller's perception of the local group norm. That is, tellers' perceptions of local group norms acted as a self-fulfilling prophecy. The data furthermore provided some evidence that a negative majority norm boosted this effect. Indeed, for trust and negative affect, assimilation to the perceived local group norm was stronger in the negative than in the positive majority norm condition.

## STUDY 3

Study 3 served two main purposes. First, we aimed to replicate Studies 1–2. Second, we tested whether the stronger polarization effects under a negative majority norm resulted from local group processes rather than individual reflection (Hypothesis 3). Although the combined findings of Studies 1 and 2 provided an initial answer to this question, a valid test of Hypotheses 1 and 3 should include both individual and local group conditions in the same design. Therefore, Study 3 was designed similar to Study 2, but added two conditions in which participants reflected individually on the scenario under a negative or positive majority norm.

## Method

### *Participants and design*

Participants were 138 high school students (118 women, 18 men;  $M_{\text{age}} = 15.51$ ,  $SD = 0.64^{15}$ ) participating as part of an introduction to psychology workshop. Most participants had native Dutch ( $n = 122$ ) or different Western or dual nationalities ( $n = 6$ ). Data of eight participants with non-Western backgrounds (Latin American, Asian, African, and Middle Eastern) and their local group members ( $n = 10$ ) were removed before analyses.

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<sup>15</sup> Two students did not indicate their gender, age, or background.



The study had a 2 (majority norm: positive vs. negative)  $\times$  3 (role: teller vs. listener vs. individual) between-subjects design. Students entered the room in classes of 20–27. In the local group conditions, they were randomly separated into groups of two ( $n = 9$ ), three ( $n = 21$ ), or four students ( $n = 1$ ). The negative norm conditions included 16 tellers, 27 listeners, and 18 individuals; the positive norm conditions included 15 tellers, 27 listeners, and 17 individuals. We followed the procedure of Study 2, except for a minor change: We assessed the perceived local group norm (only for *tellers*) and the perceived native Dutch student (i.e., majority) norm (only for *tellers* and *individuals*) directly *after* the majority norm manipulation, before they read the scenario or started talking with their local group members. To ensure that all local group members would be ready for the group task around the same time, *listeners* simultaneously completed a filler task (neutral word search).

In the individual conditions, participants sat behind separate tables. The procedure for *individuals* was similar to that for tellers, with two exceptions: (1) rather than telling their experience of the scenario to their local group, they reflected on it individually, and (2) individuals did not answer questions about local group norms because there was no group to refer to. Both local groups and individuals were given 5 min to discuss/reflect on the scenario. Afterwards, all participants completed questionnaires.

### Measures

We used the same measures as in Study 2 to assess native Dutch student norms (majority norm manipulation check;  $\alpha = .94$ ), perceived local group norms (only for tellers;  $\alpha = .91$ ), target evaluation ( $\alpha = .93$ ), and outgroup attitudes ( $\alpha = .90$ ). Subsequently, all participants described the ambiguous scenario in writing and indicated their demographics and intergroup contact frequency.

Two independent coders coded all scenario reports. Their scores were averaged to create indicators of *trust* in the target ( $ICC2 = .90$ ) and *negative affect* ( $ICC2 = .72$ ).

### Results

The data were analysed in two parts, each focusing on a different comparison. Part 1 compared local groups (including both tellers and listeners) to replicate Study 2: We used the same multilevel approach to compare polarization between local groups in the negative vs. positive majority norm conditions (testing Hypothesis 1) and to examine the role of perceived local group norms in this process (testing Hypothesis 2). Part 2 tested whether local group discussions *catalysed* polarization processes (Hypothesis 3). We compared attitude polarization among tellers with attitude polarization among those who reflected individually (i.e., the individuals). We exclude listeners in part 2, for two reasons. First, tellers and individuals were exposed to exactly the same information (i.e., majority norm manipulation and scenario; whereas listeners did not read these documents), and thus, the only difference between tellers and individuals was that they discussed this scenario in a local group or reflected on it individually (i.e., the difference of interest). Second, comparing the tellers and individuals allowed us to compare equally sized groups, thereby excluding the possibility of differences in variance due to between-condition sample size differences.

**Table 3.** Means, group influence statistics, and test results for between-condition differences in group-level variance in Study 3

	Negative majority norm ( <i>n</i> = 43)					Positive majority norm ( <i>n</i> = 42)					Between-condition difference in group-level variance	Chi-square test comparing fit in Model 1 and Model 2.
	Variance					Variance						
	<i>M</i>	Individual level	Group level	ICCI	<i>M</i>	Individual level	Group level	ICCI	Wald <i>Z</i>	<i>p</i>	$\Delta\chi^2$	<i>p</i>
Evaluation target	4.04	0.57 (0.16)***	1.09 (0.48)*	.66	4.32	0.37 (0.10)***	0.11 (0.10)	.24	−2.456	.014	7.62	.006
Trust	2.79	1.23 (0.34)***	0.27 (0.31)	.18	2.50	0.62 (0.14)***	0.00 <sup>a</sup> (0.00)	.00	−2.014	.044	3.39	.066
Negative affect	3.23	0.51 (0.14)***	0.05 (0.10)	.10	3.20	0.21 (0.06)***	0.00 (0.03)	.01	−2.055	.040	2.67	.102
Outgroup attitude	4.53	0.92 (0.27)***	0.17 (0.24)	.15	4.98	0.68 (0.15)***	0.00 <sup>a</sup> (0.00)	.00	−1.970	.049	1.44	.230

Notes. Results display only data from participants in groups. Standard errors for the variances are reported between brackets.

<sup>a</sup>This parameter is redundant.

\*\*\**p* < .001; \**p* < .05.

### Manipulation check

Because the majority norm manipulation was displayed only to tellers and individuals, the manipulation check was also conducted on only those participants. The intended effect on majority norms was revealed: Participants in the negative norm condition perceived the native Dutch student norm regarding Moroccan Dutch students to be more negative ( $M = 3.15$ , 95% CI [2.83; 3.48]) than those in the positive norm condition ( $M = 5.32$ , 95% CI [4.90; 5.73]), *mean difference* = 2.17 ( $SE = 0.26$ ),  $t(63) = 8.42$ ,  $p < .001$ . Because neither of the confidence intervals around the manipulation check means includes the midpoint of the scale (i.e., 4), we are confident to have manipulated a truly positive and a truly negative majority norm.

### Part 1: Polarization between local groups

To examine polarization, we compared between local group variances per condition as in Study 2 (see Table 3). Supporting Hypothesis 1, *Wald Z* tests indicated that for all dependent variables, more variance was explained on the local group level in the negative majority norm condition than in the positive majority norm condition: Target evaluation, *Wald Z* =  $-2.46$ ,  $p = .014$ ; trust, *Wald Z* =  $-2.01$ ,  $p = .044$ ; negative affect, *Wald Z* =  $-2.06$ ,  $p = .040$ ; and outgroup attitudes, *Wald Z* =  $-1.97$ ,  $p = .049$ .

### Teller's perception of local group norm

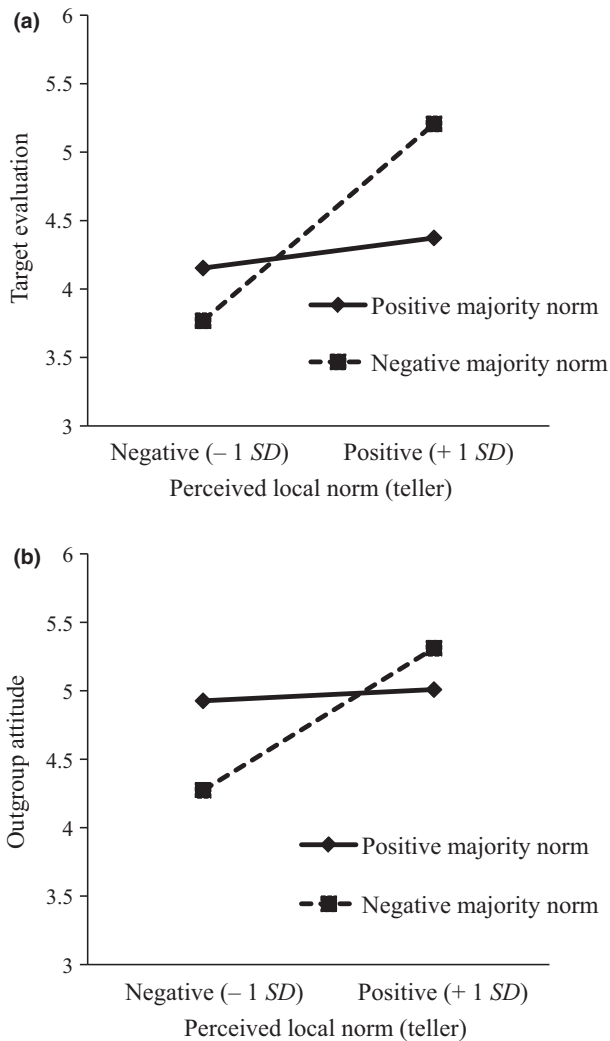
We then examined whether the teller's perception of the local group norm predicted the direction of polarization (Hypothesis 2). Using multilevel modelling as in Study 2, we entered the Level 2 predictors (majority norm manipulation, teller's perceived local group norm, and their interaction) to predict DVs at Level 1 (individual local group members).

First, we found convincing evidence for a main effect of the teller's perceived local group norm on target evaluation,  $\gamma = .72$  (0.22),  $t(26) = 3.24$ ,  $p = .003$ , and outgroup attitudes,  $\gamma = .52$  (0.16),  $t(26) = 3.29$ ,  $p = .003$ . The main effects on trust,  $\gamma = .36$  (0.19),  $t(26) = 1.91$ ,  $p = .068$ , and negative affect,  $\gamma = -.17$  (0.12),  $t(26) = -1.45$ ,  $p = .159$ , did not reach statistical significance. All patterns consistently showed assimilation to the local group norm.

The majority norm manipulation affected trust, but as in Study 2, this effect was counterintuitive: Trust was higher under a negative (vs. positive) majority norm,  $\gamma = -.65$  (0.27),  $t(26) = -2.44$ ,  $p = .022$ .<sup>16</sup> No other main effects were found,  $|t|s < 1.00$ ,  $ps > .430$ .

Importantly, the main effect on outgroup attitude was qualified by a statistically significant interaction,  $\gamma = -0.48$  (0.22),  $t(26) = -2.14$ ,  $p = .042$ . The interaction effect on target evaluation did not reach statistical significance,  $\gamma = -0.61$  (0.31),  $t(26) = -1.94$ ,  $p = .064$  (see Figures 2a,b). The pattern of interactions suggests that under a positive majority norm, the teller's perceived local group norms did not influence local group members' target evaluations or outgroup attitudes. However, under a negative majority norm, the tellers' perceptions of the local norm guided local group members' evaluations of the outgroup target and their attitudes towards

<sup>16</sup> The main effect of trust in Studies 2 and 3 suggests that local group members shift their judgements away from the majority norm. However, because the main effect in both studies only appeared when we included the interaction term in the model, it should be interpreted with caution.



**Figure 2.** Interaction effects between majority norms and local group norms for (a) target evaluation and (b) outgroup attitude in Study 3.

the outgroup in general. No interactions on trust or negative affect were found,  $|t|s < 1.00$ ,  $ps > .558$ .

## Part 2: Comparing local groups and individuals

We analysed the differences in variances between the positive and negative majority norm conditions for tellers and individuals separately. We first conducted a one-sided Bartlett-Box test for equality of variances on the DVs assessing attitudes towards the target (trust, negative affect, and target evaluation).<sup>17</sup> We subsequently used one-sided Levene's tests

<sup>17</sup> We used one-sided tests, because we had clear hypotheses for the direction of the effects in the negative norm condition (following guidelines by Snijders & Bosker, 2012). To afford comparability, tests in the positive norm condition were also conducted one-sided.

**Table 4.** Means and standard deviations of tellers in the group conditions and participants in the individual conditions (Study 3)

	Group teller		Individual	
	Negative majority norm ( <i>n</i> = 16)	Positive majority norm ( <i>n</i> = 15)	Negative majority norm ( <i>n</i> = 18)	Positive majority norm ( <i>n</i> = 17)
Evaluation target	4.05 (1.35)	4.26 (0.80)	4.58 (0.77)	4.29 (1.22)
Trust	2.84 (1.41)	2.84 (0.63)	3.22 (1.15)	2.56 (1.29)
Negative affect	3.25 (0.98)	3.43 (0.50)	3.14 (0.94)	3.44 (0.83)
Outgroup attitude	4.75 (1.21)	5.16 (0.98)	4.85 (0.69)	4.69 (1.34)

to test the equality of variances of each DV separately, including outgroup attitudes, to test for potential generalization of the target evaluations to evaluations of the entire outgroup (see Table 4).

As expected, for tellers, comparing the variances in the positive versus negative norm conditions revealed a significant overall difference, Box's  $M = 12.72$ ,  $p = .040$ . Accordingly, Levene's tests for equality of error variances revealed statistically significant between-condition differences for trust,  $F(1, 29) = 9.88$ ,  $p = .002$ , and negative affect,  $F(1, 29) = 2.92$ ,  $p = .049$ . The effect on target evaluation was not statistically significant,  $F(1, 29) = 2.48$ ,  $p = .063$ . The pattern on all variables was consistent with more variance in the negative norm condition. We subsequently tested whether the polarized perceptions of the outgroup target generalized to attitudes towards the outgroup as a whole. The difference between the majority norm condition variances was in the predicted direction but not significant,  $F(1, 29) = 1.11$ ,  $p = .151$ .

For individuals, the Bartlett-Box test did not reveal a statistically significant difference in variances, Box's  $M = 11.57$ ,  $p = .054$ . Accordingly, the pattern was less clear: Whereas the standard deviation of target evaluation was higher in the positive majority norm condition,  $F(1, 33) = 3.35$ ,  $p = .038$ , no differences were found on trust and negative affect,  $F_s < .704$ ,  $p_s > .204$ . Unexpectedly, the variance in outgroup attitudes was higher in the positive norm condition,  $F(1, 33) = 5.65$ ,  $p = .012$ .

## Discussion

Replicating Study 2, Study 3 provided evidence that the valence of a broad social category norm influences the degree of polarization between local groups within that broader social category. Across variables, the variance between local groups was significantly larger in the negative than in the positive majority norm condition.

Moreover, Study 3 replicated the finding that perceptions of local group norms drive this effect, again supporting Hypothesis 2. Indeed, the teller's perception of local norms predicted local group members' attitudes towards the individual minority target and towards the minority category as a whole. Tellers' perceptions of what is normative in their local groups act as self-fulfilling prophecies, shaping the views of local group members. Interestingly, the interaction effect suggests that this influence occurred especially under conditions of a negative majority norm. This suggests that the alarm signal posed by the negative majority norm may make tellers especially likely to attune to the perceived norms of their local group when reporting an intergroup event.

Finally, Study 3 aimed to examine whether polarization occurred only in local group settings (as suggested by the null-findings of Study 1) or was a direct effect of the manipulation of a negative majority norm. Study 3 therefore combined the designs of Studies 1 and 2 to enable a comparison between participants who discussed a scenario in their local group (the tellers) and participants who reflected on it individually. Supporting Hypothesis 3, a negative majority norm only polarized tellers' attitudes regarding a minority target. For those reflecting on the scenario individually, a negative (vs. positive) majority norm did not increase polarization. If anything, evidence suggested somewhat more polarization between individuals under a positive (vs. negative) majority norm.

## GENERAL DISCUSSION

The current research aimed to explain contemporary observations of polarization processes in Western societies, in which local groups shift to both the extreme right-wing and extreme left-wing parties. We examined the potential risk posed by a negative societal sentiment in polarizing the discussion about immigrants. To this end, we employed a novel analytic approach: We compared variances in both individual- and multilevel designs to assess polarization (cf. Jans *et al.*, 2015; Kuppens & Yzerbyt, 2014). Three studies provided converging evidence that discussion within local majority groups catalyses the polarization of views towards minorities. Moreover, this process is influenced by perceptions of norms at both the local and the broader categorical level. The studies concentrated on native Dutch high school or university students (i.e., majority members), who discussed or individually interpreted an ambiguous scenario describing an encounter with a Moroccan Dutch student (minority outgroup target). The results consistently show that majority members take on more extreme views (both positive and negative) concerning a minority when (1) they are informed that, at the categorical level, the majority endorses negative views about this minority and (2) they engage in local group discussion with fellow majority members. The direction in which each local majority groups' views polarized was predicted by the local norm perceptions of the majority member who introduced the scenario (i.e., the teller) to the other local group members (i.e., the active 'listeners'). That is, the tellers' perceptions of the local norms regarding the target minority acted as self-fulfilling prophecies, steering their local groups towards either negative or positive outgroup perceptions and, hence, causing polarization between local groups (Studies 2–3). Such polarization did not occur under a positive majority norm or when majority members engaged in individual reflection rather than small-group discussions (Studies 1 and 3). These findings suggest that a negative, category-level majority norm urges majority members to take a stance in the debate, but that they need local-level interaction with fellow majority members to validate their viewpoints to be able to develop a firm stance.

### *Theoretical implications*

Relating these findings to the existing literature on social influence, a number of observations can be made. First, we find no evidence that individuals passively conform to majority norms. It is noteworthy, however, that in studies reporting such conformity, participants typically did not engage in any form of social interaction (e.g., 'minimal group paradigm'; Crandall & Stangor, 2005; Monteith, Deneen, & Tooman, 1996; Tajfel, 1970). In our studies – mimicking more real-life contexts – we do not replicate these norm



compliance effects. Instead, we show that when people *interact* about norm-relevant information, they tend to construct norms and stereotypes more dynamically. That is, by turning to local groups, people can negotiate and validate a collectively shared viewpoint at the local level that could conform to *or* clash with the existing negative majority norm at the categorical level.

Second, it is important to distinguish the present research from established findings that group polarization occurs in the context of intergroup conflict (e.g., Abrams, Wetherell, Cochrane, Hogg, & Turner, 1990; Doise, 1969). Previous work has shown that collective judgements of group members become more extreme when confronted with a rival group. In our research, the negative norm manipulation may have made the intergroup conflict between native Dutch and Moroccan Dutch students more salient. The literature on intergroup conflict suggests that when such conflict is salient, one is likely to minimize differences within the in-group and distinguish oneself from the outgroup (Doise, 1969; Turner, 1985). One would thus expect 'polarization' between the majority category (here native Dutch students) and minority category (here Moroccan Dutch students). In the present studies, however, we find polarization at a different level. We demonstrate that when a negative norm about the outgroup is established at the level of a majority category in society, individual judgements do not shift to be in line with this norm, but polarization occurs between small local groups *within* that majority category. This is a crucial difference, because it implies that intergroup tension does not motivate group members to straightforwardly support the majority category position (thereby minimizing differences within the majority group), but instead motivates them to actively construe meaning regarding the minority category with the people in their direct environment. Thus, the direction of polarization results from the complex dynamic interactions within psychologically relevant local groups of individuals rather than from abstract social category membership (cf. McGarty *et al.*, 2009).

Third, in our research, we found evidence for group influence in the form of polarization *between* local groups. That is, rather than converging their opinions to an average of opinions, local group members collectively shifted to a more extreme point on either side of the opinion spectrum. Interestingly, these effects occurred in the absence of a clear intergroup context between local groups. The previous theorizing has explained polarization as resulting from the motivation to distinguish oneself positively in intergroup comparisons (Turner, 1985; Turner, Hogg, Oakes, Reicher, & Wetherell, 1987). In our experiment, although group members were aware of other groups participating in the experiment, they had no indication of how to distinguish themselves from other local groups on this topic, as no information regarding the norms of other groups was provided. The only information given was the existence of a negative (or positive) overarching majority norm. We suggest that this negative majority norm could foster polarization in two ways: First, a negative majority norm may serve as an alarm signal, similar to threat or negative mood, that the current situation requires action (Bless *et al.*, 1990; Van Knippenberg *et al.*, 2010). This may stimulate more in-depth group discussion of what their group stands for, thereby facilitating the emergence of a polarized view. Second, the development of negative attitudes about a minority category may require more social validation, because negative attitudes are, in essence, less morally valued than positive attitudes (Katz & Hass, 1988; Killen & Smetana, 2006; Rutland *et al.*, 2010). Individuals may therefore be more strongly influenced by their local group than they would have been under a more positive majority norm.

### **Predictors of group polarization**

In line with these ideas, Studies 2 and 3 provide converging evidence that the direction in which each group polarizes is predicted by the tellers' perceptions of the local group norm. It appears that when communicating to other group members about a controversial issue (e.g., an ambiguous interaction with a minority category member), people estimate the local group norm and tailor their descriptions of the issue accordingly. In this way, intragroup communication is likely to reinforce – rather than challenge – presupposed local group norms, which may differ from majority norms. Although we did not directly analyse the content of group discussions, this explanation is in line with research suggesting that group members prefer to transmit stereotype-consistent information (Clark & Kashima, 2007) and also with research on the social tuning of racial attitudes to listeners (Sinclair, Lowery, Hardin, & Colangelo, 2005) and on the consensualizing nature of group discussions (Festinger, 1950; Haslam *et al.*, 1997).

Extending this literature, the present research provides two important novel insights: we demonstrate (1) that local polarization occurs more strongly under a negative majority norm and (2) that norm conformity is a complex process in which perceived majority and local group norms interactively influence individuals. Specifically, our studies suggest that under a negative norm, tellers may be more likely to take position, explaining the polarization processes between groups. On the one hand, the negative norm may provide leeway for negative opinions to arise: When tellers believe their group shares the majority norm, they may feel disinhibited to derogate an ambiguously behaving minority member. On the other hand, this can lead to contrast from the majority norm: Tellers may believe that their group does not share the negative norm and feel a need to tailor their descriptions positively to avoid appearing prejudiced. Interestingly, these processes are much less pronounced when a positive majority norm is set. It seems that the positivity of the norm – and potentially, of the debate – reduces the need to take position but allows for more nuanced opinions.

A strength of the current set of studies is that we tested polarization processes under more or less naturalistic conditions, that is in discussions that might actually take place at schoolyards or in university canteens. This stress on external validity might have gone somewhat at the expense of examining the more fine-grained cognitive processes that took place when processing and discussing the information. These cognitive processes, for example more thorough information processing in the negative norm condition, can be tested under more controlled laboratory conditions in future studies.

### **Concluding thoughts**

We believe that the present research provides important insights into the complex influence of norms on shaping intergroup perceptions and attitudes – insights that would not have been obtained from examining either societal-level norms, small-group interactions, or individual processes alone. Indeed, current polarization (and radicalization) patterns such as the increasing support for political parties with an extreme left- or right-wing orientation are difficult to explain when examining individual-, group-, or societal-level factors separately. Indeed, in our research, we depart from classical intergroup literature to explain how polarization can occur at a different level, namely between local subgroups of the same majority category (here, native Dutch students). Our findings demonstrate that majority members do not passively conform to their social category norms about minority categories, but actively construe meaning about these stereotypes with the people around them. The integration of wider societal contexts,

group-level processes, and individual perceptions of – and interactions with – these higher level variables provides a unique insight into the ways in which local majority subgroups in society can become divided on important issues such as immigration. Therefore, we argue that cross-level examinations enable a better (i.e., more realistic) prediction of behavioural patterns that are currently witnessed in society.

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